

Roberto ALVAREZ AREVALO, *et al.*
Serial No. 10/593,587
May 19, 2010

REMARKS/ARGUMENTS

Reconsideration of this application is respectfully requested.

The Examiner's attention is drawn to related copending application Serial No. 10/549,912 filed September 20, 2005, naming Alvarez Arevalo, Turnbull and Walker as three co-inventors. A concurrently filed IDS also calls attention to prior art cited and office actions issued therein. It is assumed that the Examiner has immediate electronic access through the USPTO's own IFW to the same material. If any additional information or documents related thereto is desired, then it is respectfully requested that the undersigned be telephoned so that such request can be promptly addressed.

As will be noted above, claims 1-18 have now been cancelled without prejudice or disclaimer in favor of new claims 19-32. For the Examiner's convenience, it is noted that new claims 19-32 are comparable to now cancelled claims 1-11, 13 and 17-18, respectively.

In response to the Examiner's formality-based objection to claim 4, new claim 22 has been drafted to incorporate the Examiner's suggested improvements.

The rejection of claims 1-5, 9, 12 and 16 under 35 U.S.C. §112, first paragraph, as failing to comply with the "written description" requirement is respectfully traversed.

As the Examiner no doubt appreciates, the applicants' original specification describes exemplary embodiments wherein buffer underflow at the receiver is avoided

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by judicious control at the transmitter end. In particular, in the exemplary embodiment of Fig. 1, the problem presented is to transmit one of the stored files (e.g., V1) as a sequence of data packets (e.g., digitally encoded video frames) over a possibly variable bit rate transmission network 2 to a buffered receiver 3 – and to ensure against buffer underflow at the receiver by analyzing some or all of the stored file to determine a point in the transmission process at which it should be safe for the receiver to go ahead and start decoding what has by then accumulated in the buffer 32. Thus, either implicitly or explicitly, the transmitter instructs the receiver as to when it may start to decode the buffer contents. The analysis performed by the transmitter is designed to avoid underflow in the receiver buffer – and some embodiments are especially designed to work when the transmission rate is variable and/or the number of bits in each packet may vary, etc.

The Examiner apparently objects to the wording that was previously proposed in an earlier amendment to describe some aspects of this situation – because there is no *in hanc verba* copy of that exact sequence of words and phrases found in the originally filed application. However, as the Examiner is no doubt already aware, there is no requirement for *in hanc verba* antecedent basis in order to satisfy the “written description” requirements of 35 U.S.C. §112. Instead, it is sufficient if those skilled in the relevant art would understand from reading the original application that the inventors had possession of the claimed subject matter.

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It is respectfully submitted that those having skill in the relevant art would clearly understand that there was indeed "written description" in the original application for the collection of words used in the amendment of July 6, 2009. However, in an attempt to moot this ground of rejection, newly drafted claims 19-32 are presented using somewhat different words that those skilled in the relevant art would find to be clearly descriptive of the substantive content of the originally filed application.

Should the Examiner have any continuing concern about a lack of "written description" with respect to the newly presented claim language, it is respectfully requested that the Examiner telephone the undersigned for discussion so that any such further issue can be quickly resolved.

The rejection of claims 1, 16, 17 and 18 under 35 U.S.C. §112, second paragraph, as allegedly being "generally narrative and indefinite" is also respectfully traversed. However, once again, it is hoped that the above redrafted new set of claims will simply moot this ground of rejection. The new claims are believed to conform well to current U.S. practice and to be definite in the sense required by 35 U.S.C. §112, second paragraph. That is, those skilled in the relevant art will have no difficulty understanding the scope of the claimed subject matter. No more is required.

Once again, should the Examiner have continuing concerns about "indefiniteness" with respect to the newly presented set of claims, then it is respectfully requested

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that the undersigned be telephoned for discussion so that any such continuing issue may be promptly resolved.

The rejection of claims 1-18 under 35 U.S.C. §102 as allegedly anticipated by Harumoto '970 is respectfully traversed.

Claim 19 relates to the control feature of the server which determines when the receiver is to commence playing received data.

To clarify the term "point", this is now referred to as "a point in the transmission of the recording". There is support for this in the original claims and in the original specification. For example, see Figs. 3 and 4, where it is clear a frame n is transmitted and the test is then performed (in practice by the control unit – see page 6:1-2: "...the control unit performs this calculation each time it sends a packet to the transmitter..." Also see page 5:9-11: "One of the functions of the control unit is that, each time it sends a packet to the transmitter 12, it evaluates the test embodied in Equation 10." Other embodiments of the invention support the test being performed at longer intervals in the transmission of the recording, for example, once every five packets (see page 6:3). Accordingly, the "point" determines where in the recording the transmission has proceeded until the control unit (implicitly or explicitly) instructs the receiver to start playing (e.g., decoding) the data it has by then already received. It is also clear from the fact that if the test fails, then a further packet is transmitted, whereas if the test is passed, the control (e.g., a message to "start") is sent out (see page 5:19-24).

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The references to “data section” have been corrected to a form having more clear support in the new claims.

Claim 20 relates to an independent form of earlier claim 2. The dependencies of the remaining dependent claims are now with respect to claim 20 where appropriate.

Claim 31 is dependent on claim 19 (corresponding to earlier claim 1/17) and is supported by the specification (for example, see page 1:2-3).

Claim 32 recites a transmission system comprising features equivalent to claim 19, and finds support from the specification and claims as originally filed.

Harumoto at 4:7-9 teaches a streaming method in which a server transmits stream data to a terminal over a network, and the terminal plays back the stream data while receiving the stream data. However, unlike the applicants' claimed invention, in Harumoto, the determination of how to buffer received data and when to commence playback is all decided in the receiving terminal and not at the server. The applicants' independent claims all require transmission over a network between the server and the receiving terminal and require that the control to start playing the received data at some point is sent from the server to the receiver.

In Harumoto, it is quite clear that the delay time is determined in the receiving terminal as to when the terminal should read back from a buffer data it has written to the

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buffer. It is also very clear that the terminal then notifies the server of the delay time it has determined. This does not happen in the applicants' claimed invention.

For example, although the Examiner has cited Harumoto at 17:37-65 against the claims previously on file, 17:32-35 clearly indicates: "Once the server 101 has received the value of the parameter T_delay from the terminal, the server 101 controls the transmission speed in streaming based on this amount." 12:47-52 refers to the terminal notifying the server of the S_delay, from which the server can calculate T_delay. However, the S_delay is also calculated by the receiver.

The applicants' claimed server does not use any data from the receiver and instead remotely controls when the receiver starts to play a recording which it has only partially received to avoid the receiver's buffer underflowing at any point while the remainder of the recording is being received.

Accordingly, applicants' claims require that (implicitly or explicitly) a control message is sent from the server to the receiver after which the receiver is to commence playing the portion of the recording it has already received.

Given the fundamental deficiencies already noted with respect to the independent claims, it is not necessary at this time to detail additional deficiencies of this reference with respect to other aspects of the rejected claims. Suffice it to note

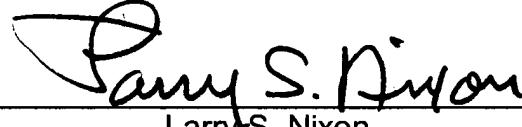
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that, as a matter of law, it is not possible to support a *prima facie* case of anticipation unless the cited single reference teaches each and every feature of each rejected claim.

Accordingly, this entire application is now believed to be in allowable condition, and a formal notice to that effect is earnestly solicited.

Respectfully submitted,

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